



## Campylobacter monitoring in German broiler flocks: An explorative time series analysis

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### Abstract:

Campylobacter, a major zoonotic pathogen, displays seasonality in poultry and in humans. In order to identify temporal patterns in the prevalence of thermophilic Campylobacter spp. in a voluntary monitoring programme in broiler flocks in Germany and in the reported human incidence, time series methods were used. The data originated between May 2004 and June 2007. By the use of seasonal decomposition, autocorrelation and cross-correlation functions, it could be shown that an annual seasonality is present. However, the peak month differs between sample submission, prevalence in broilers and human incidence. Strikingly, the peak in human campylobacterioses preceded the peak in broiler prevalence in Lower Saxony rather than occurring after it. Significant cross-correlations between monthly temperature and prevalence in broilers as well as between human incidence, monthly temperature, rainfall and wind-force were identified. The results highlight the necessity to quantify the transmission of Campylobacter from broiler to humans and to include climatic factors in order to gain further insight into the epidemiology of this zoonotic disease.

**Source:** <http://dx.doi.org/10.1111/j.1863-2378.2008.01184.x>

### Resource Description

#### Exposure :

weather or climate related pathway by which climate change affects health

Food/Water Quality

**Food/Water Quality:** Pathogen

#### Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

#### Geographic Location:

resource focuses on specific location

Non-United States

**Non-United States:** Europe

**European Region/Country:** European Country

**Other European Country :** Germany

**Health Impact:** ☒

specification of health effect or disease related to climate change exposure

Infectious Disease

**Infectious Disease:** Foodborne/Waterborne Disease

**Foodborne/Waterborne Disease:** Campylobacteriosis

**Resource Type:** ☒

format or standard characteristic of resource

Research Article

**Timescale:** ☒

time period studied

Time Scale Unspecified